

AMENDMENTS TO THE CLAIMS

Claim 1 (**Currently Amended**) A data transmission/reception apparatus for performing a data transfer by a pipeline technique between a first-predetermined number of processing ~~means~~ sections, each processing section being capable of performing a data ~~process~~, process and the first-predetermined number of processing sections being two or more, said apparatus comprising:
a ~~second~~-predetermined number of intermediary ~~means~~-sections for interconnecting a first data processing ~~means~~-section and a second data processing ~~means~~-section and allowing data ~~obtained through the data process performed~~-processed by the first data processing ~~means~~section to be transmitted to the second data processing ~~means~~section, ~~wherein~~ the first data processing ~~means~~section and second data processing ~~means~~section ~~are being~~ adjoining data processing ~~means~~sections, and the ~~second~~-said predetermined number of intermediary sections being smaller by one than the first predetermined number of processing sections,

~~wherein~~, wherein the first data processing ~~means~~section includes a transmission ~~means~~section for providing connection to the ~~said~~ predetermined number of intermediary ~~means~~sections to transmit the data to the second data processing ~~means~~section; and the second data processing ~~means~~section includes a reception ~~means~~section for providing a connection to the ~~said~~ predetermined number of intermediary ~~means~~sections to receive the data transmitted from the first data processing ~~means~~section, and the each predetermined number of processing sections ~~intermediary means includes: transmission/reception control means for controlling the data transmission/reception; and a buffer for temporarily storing the data being either an active processing section or a passive processing section, and~~

wherein said intermediary sections generate a data queue for retaining data to be transferred when both the first data processing section and the second data processing section are the active processing sections, and said intermediary sections do not generate the data queue when either the first data processing section or the second data processing section is the passive processing section.

Claims 2-4 (**Canceled**)

Claim 5 (Currently Amended) The data transmission/reception apparatus according to ~~claim 3 or 4~~ 1, wherein the transmission section in the first data processing section executes a transmission request in a common mode irrespective of whether the second data processing section is the active processing section or the passive processing section; and the reception section included in the second data processing section executes a reception request in a common mode irrespective of whether the first data processing section is the active processing section or the passive processing section~~data transmission request and the data reception request are the same irrespective of whether the data queue is to be generated or not.~~

Claim 6 (Currently Amended) The data transmission/reception apparatus according to ~~any of claims claim 1, wherein,~~ wherein the second said predetermined number of intermediary sections is equal to or greater than two, and said the second predetermined number of intermediary means sections perform ~~performs~~ an identical function.

Claims 7-12(Canceled)

Claim 13 (New) A data transmission/reception apparatus for performing a data transfer by a pipeline technique between a predetermined number of processing means each processing means being capable of performing a data process and the predetermined number of processing means being two or more, said apparatus comprising:

a predetermined number of intermediary means for interconnecting a first data processing means and a second data processing means and allowing data processed by the first data processing means to be transmitted to the second data processing means, the first data processing means and second data processing means being adjoining data processing means, and said predetermined number of intermediary means being smaller by one than the predetermined number of processing means,

wherein the first data processing means includes a transmission means for providing connection to said predetermined number of intermediary means to transmit the data to the

second data processing means; and the second data processing means includes a reception means for providing a connection to said predetermined number of intermediary means to receive the data transmitted from the first data processing means, and each predetermined number of processing means being either an active processing means or a passive processing means, and

wherein said intermediary means generates a data queue for retaining data to be transferred when both the first data processing means and the second data processing means are the active processing means, and said intermediary means does not generate the data queue when either the first data processing means or the second data processing means is the passive processing means.